

HELICAL DRIVE INSERTION AND EJECTION

ABSTRACT

5 A helical drive system for seating and unseating a removable component, such as a
printed circuit board, into a slot is described. The helical drive system includes a receptacle
fixed to a housing proximate the slot. A handle and drive shaft are attached to the printed
circuit board. The drive shaft has a helical groove that mates with a pin included in the
receptacle. Rotation of the drive shaft pulls the printed circuit board into the slot and fully
seats the printed circuit board. Rotation in the other direction unseats the printed circuit
10 board. The helical groove has an enlarged entry that terminates in one or more points. This
configuration facilitates the automatic alignment of the pin with the helical groove.